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10/527,838	03/15/2005	Akihiko Iguchi	28951.2192	1817
53067	7590	05/16/2006	EXAMINER	
STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVE., NW WASHINGTON, DC 20036			HO, TAN	
			ART UNIT	PAPER NUMBER
			2821	

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Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Saito (US Patent 6,255,994).

Saito discloses, in figures 4 and 7, an antenna device comprising a ground plate 3, a planar radiator 2 disposed facing the ground plate, a short line 5, a feed line 4 connected to the radiator, and an inductance element 8 electrically connected between the ground plate and the short line.

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Koskiniemi et al (US Patent 6,882,317).

Koskiniemi et al disclose, in figure 4, an antenna device comprising a ground plate 3, a planar radiator having two antenna elements separated by a slit 19, a short line, a feed line 415 connected to the radiator, and an inductance element 414 electrically connected between the ground plate and the short line.

4. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Edvardsson (US Patent 6,903,688).

Edvardsson discloses, in figure 8, an antenna device comprising a ground plate, a planar radiator, a short line, a feed line connected to the radiator, and an inductance element 116 electrically connected between the ground plate and the short line.

Regarding claim 3, figures 15a shows the inductance element 716 formed on the surface of the circuit board 719, see column 8, lines 19-21.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito.

The patent to Saito, described above differs from the claimed invention because it does not disclose the chip coil. However, the chip coil is well known in the art and therefore it represents an obvious expedient.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's figures 7A, 7B, and 8 in view of Saito.

The applicant's prior art, figures 7A, 7B, and 8 disclose all aspects of the claimed invention except the inductance element connected between the short line 104 and the ground plate 102. Saito, described above, teaches an inductance element electrically connected between the short line and the ground plate. Since one of ordinary skill in the

art would have recognized the benefits of changing the impedance value between the radiating element and the ground plate, it would have been obvious to provide the antenna of the prior art figure 8 with an inductive element as taught by Saito, see column 7, lines 21-26.

8. The patents to Miyata et al, Kuramoto, and Pankinaho et al are cited as of interest showing the antenna similar to that disclosed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Ho whose telephone number is (571) 272-1822. The examiner can normally be reached on M-F (8:00AM - 5:00PM).

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
TAN HO  
PRIMARY EXAMINER